

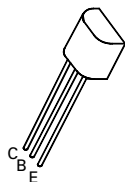
PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

2N6520

ISSUE 1 – MARCH 94

FEATURES

- * 350 Volt V_{CE0}
- * Gain of 15 at $I_C = -100\text{mA}$



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-350	V
Collector-Emitter Voltage	V_{CEO}	-350	V
Emitter-Base Voltage	V_{EBO}	-5	V
Base Current	I_B	-250	mA
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	680	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-350		V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-350		V	$I_C = -1\text{mA}, I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	I_{CBO}		-50	nA	$V_{CB} = -250\text{V}, I_E = 0$
Emitter Cut-Off Current	I_{EBO}		-50	nA	$V_{EB} = -4\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.3 -0.35 -0.5 -1.0	V V V V	$I_C = -10\text{mA}, I_B = -1\text{mA}^*$ $I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -30\text{mA}, I_B = -3\text{mA}^*$ $I_C = -50\text{mA}, I_B = -5\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.80 -0.85 -0.90	V V V	$I_C = -10\text{mA}, I_B = -1\text{mA}^*$ $I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -30\text{mA}, I_B = -3\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-2.0	V	$I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	20 30 30 20 15	200 200		$I_C = -1\text{mA}, V_{CE} = -10\text{V}$ $I_C = -10\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -30\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Transition Frequency	f_T	40		MHz	$I_C = -10\text{mA}, V_{CE} = -20\text{V}, f = 20\text{MHz}$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$